

1. "What accounts for variable political power of public bureaucracies between and within political systems?"
2. "What accounts for different levels of productivity of public bureaucracies within and between political systems?"

I.- How good is the approach?

No doubt these are basic questions in comparative politics, and the effort of thinking them in terms of variables is equally sound and necessary. We have our dependent variables - political power and productivity of public bureaucracies -, we have our units of analysis - "political systems" (or perhaps "public bureaucracies?") and the only thing we have to do is to look for the independent variables.

The empirical and inductive way of doing it is to find suitable operational definitions of our dependent variables, to find the values our variables have on them, and correlate them with a set of other variables that could, in a way or another, have some impact on it. Russett's World Handbook of Social and Political Indicators, or Bank and Textor's Cross-National Survey are good examples of the way it could be done, if they only had included our dependent variables.

But of course things are not so easy, because, as our experience shows, it is almost impossible to find a consensual definition of "political power of public bureaucracies", for instance. The way of dealing with a problem of this kind, the methodologists teach us, is to split the broad concepts on their different parts, find operational definitions for each dimension, and add up the resulting measurements through a composite index.

The resistance of the "theoretically"-minded student to this kind of approach is threefold. First, the technique of correlating the dependent variables with "everything" sounds distasteful for whom is trying to think the problem; second, the splitting of the main variable into its components brings the feeling of "killing" the main problem, and the reconstructed index is seen as a kind of tied up corpse that has nothing but a vague resemblance with the original living question; finally, there is an undeniable boredom in the technicalities of dimensionalization, operationalization and index construction.

This almost psychological resistance to a more technical approach, although in many ways justifiable (we obviously have to be allowed to think our problem, instead of expecting a ready-made answer from a mighty computer), can obliterate the theoretical relevance of the technical (or logical) way of thinking: that it is a powerful instrument of overcoming the common sense and diffuse feeling about the problem and reaching a more complex, precise and inter-subjective equation of the questions in sight.

To ask for the variables that accounts for the variable political

power, or productivity, of public bureaucracies is a good approach to the problem so far as the next step is a careful discussion of the dimensions of the dependent variables - which is to say, the dimensions of our problems - and the definition of our universe, or our units of analysis. Only when some consensus is reached on these points can we proceed to the search of possible independent variables; and here a concern with general theoretical orientations (in Mertonian terms) and levels of analysis is also advisable. After this we are ready to look for specific independent variables and make theory in its more narrow and precise meaning.

This paper will try to discuss systematically the dependent variables and its loci, as well as the general orientations on dealing with independent variables. It is our belief that the problem of finding the independent variables is not very difficult, when we have a clear idea of what are we looking for. After all, the literature is plenty with hypothesis about it, with different levels of confirmation, and the main problem is how to bring them together.

## II - Units of analysis and types of variables.

Which are our units of analysis, political systems or public bureaucracies? This is not a purely technical question, since it amounts to asking: what do we want to compare, political systems or public bureaucracies?

A strictly logical answer follows easily from the main question: we are studying public bureaucracies, and these are our units of analysis. But, what about political systems? If we used Russett's or Textor's technique, we would assign one or some IBM cards to each political system, punch it with their values on the variables "political power" and "productivity", and also with all the possible independent variables that could explain the dependent ones. In this case, technically speaking, we would have "political systems" as our units of analysis.

What would this imply, theoretically? Not much, at the first glance. We could say that our cards stand for "public bureaucracies", and the only reason why we took "England", "Pakistan" or "Samoa" is because public bureaucracies happen to be allocated one in each political system, and it is easier to say "England" than "public bureaucracy of England". But the real problem is somewhat different: to choose one of the two possibilities, although being logically the same, can bring about very distinct implications, regarding the definition of the universe, the definition of our subject and the selection of independent variables.

Regarding the definition of the universe, let us consider "political systems" as our unit. In this case, we could include in the universe all political systems, from the past and present. There are many conceptual problems on doing this (shall we include Samoa? What about Goa, or Surinam?), and two main ways of solving them. The first is to make an operational definition of "political systems" (human groups bigger than one million people, with a territorial basis and autonomous political power, stables in time for more than one year, for instance), and the second is to make a definition that has to do specifically with the characteristics of its public

bureaucracy (the existence of a differentiated and non-patrimonial administrative body, for instance).

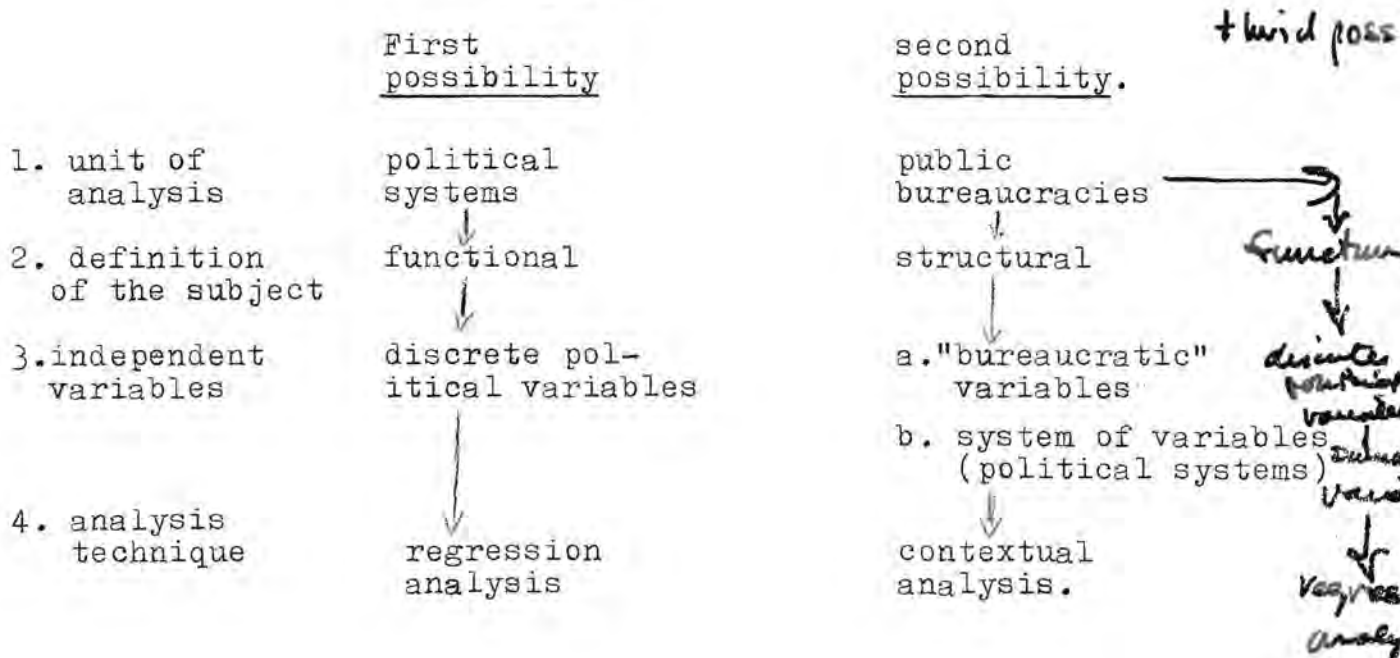
To choose the second possibility means to change the unit of analysis: we would not be delimitating an universe of political systems anymore, but rather an universe of public bureaucracies. A very likely, though not necessary consequence of using one of these two possibilities is to end up with two substantially different concepts of public bureaucracies. In the first case bureaucracy could be defined in a pure functionalist way ("the body in charge of enforcing rights and duties through authoritative allocation"), and risk to lose sight from our main problem, which seems to be that of the different characteristics of the bureaucratic institution, and the causes and consequences of these differences.

If we consider "public bureaucracy" as our unit of analysis instead, our focus of attention changes accordingly. As in current sociology, we start by comparing which attributes of our subjects vary together (does the attendance to Church vary with income? does radicalism vary with rank-incongruence? etc.) and afterwards include other variables, characteristics of the social setting, in the analysis (what is the influence of types of school in the relationship between income and IQ? How urbanization influences the relations between rank and radicalism? etc.). Regarding our questions, we would start asking for the other characteristics of public bureaucracies that are related to political power and productivity, and afterwards the political systems, with its different characteristics, can be introduced as contextual variables.

The difference between the use of social and political variables in the first case, where political systems are the units, with the use of political systems as contextual variables in the other deserves further elaboration. In the first case we can find, by regression analysis, how much of the variance of the dependent variable can be explained by each one or each combination of independent variables, and thus reach a full explanation. But we know that, given the problems of measurement, accuracy of data, sampling, etc., this logical possibility can hardly be materialized. In the second case, we have to start with the study of the specific systems of values which characterize the different political systems, or rather to define the political systems by these constellations of values. And then these systems can be used as the contexts where our phenomena can be studied. Again, there is no reason why one technique has to be preferred to the other. The first possibility is more "clean", methodologically, and can bring very important relationships to light. But the second one, for many reasons, is much more germane to the sociological tradition, and has, I believe, a more brilliant future.

The table below summarize the preceding discussion.





### III - The independent variables

Suppose we have our unit of analysis well defined, the universe earmarked, and our dependent variables well defined. To which kind of independent variables should we look for?

Inspite of "reduccionist", the following fourfold table gives a good scheme of our possibilities:

	<u>structural variables</u>	<u>behavior variables</u>
<u>extra-bureaucratic (societal) variables</u>	(Riggs, Bendix)	(Pye, McLelland)
<u>intra-bureaucratic variables</u>	(some Weber, Etzioni)	(E. Mayo, Simon)

How to choose? This is a problem of theoretical orientation, and I do not think there is a simple answer to it. The only thing to do is to get acquainted with all the possibilities, to know the pros and cons of each, and assume that one choice is better than others - and then see what comes out from the field work. It is obvious that we do not have to pick one cell only, the real problem being that we have to choose a combination of cells and hypothesize causal relations between them. In the other hand, our fourfold table does not exhaust all the possibilities. Let us amplify it somewhat, and then suggest some assumptions that could lead to a more oriented empirical (or mental) research.

In the fourfold table, the vertical axis corresponds to variables referred to our types of units, political systems and public bureaucracies. The horizontal axis shows two possibilities of what could be a much more complex classification of variables. A little less "reductionist" is Johan Galtung's suggestion for a typology for variables characterizing individuals:

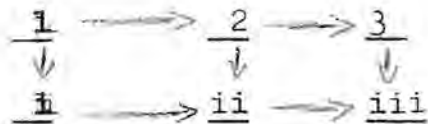
	<u>Permanent values</u>	<u>Temporal values</u>
<u>Public values</u>	I - (background variables)	(impossible)
<u>Private values</u>	II - (personality variables)	III - (attitudinal and behavioral variables)

(Galtung, J.: Theory and Methods of Social Research, I, 1.4, Instituttet for Sosiologi, Universitetet i Oslo, 1965, mime.).

If we change "public" and "private" for "structural" and "behavioral", and instead of authors use the kinds of variables they work with, our typology of variables for the study of public bureaucracies will be the following:

	<u>Political systems: extra-bureaucratic variables</u>	<u>Public bureaucracies: intra-bureaucratic variables</u>
<u>I-structural and permanent values</u>	1. (political regime, political institutions, class system)	i. (patterns of organization, staff vs line, communication etc.)
<u>II-behavioral and permanent values</u>	2. (political culture, national character)	ii. (informal structural moral, leadership patterns, etc)
<u>III-behavioral and temporal values</u>	3. (elections turnover, collective movements, political instability)	iii. (political power, productivity, corruption...)

The general assumption is that the causal chain goes from top to bottom and from left to right:



And the iii group of variables are exactly our dependent ones.

Looking again, the causality assumption does not follow easily from our table, since, for instance, "national character" is often taken as an independent variable regarding political systems, or regimes, and political institutions. But this can be a matter of further refinement, distinguishing for instance the more general, societal variables from the more specifically political ones within the political systems variables. (McLelland will still disagree, but this is because his assumption is upside down...)

In practice, it is impossible to work at the same time with our 6 groups of variables, if we want to make any comparative study. Actually, if we had only one variable for each group, with two values each, we would need to fill in  $2^6$  cells which are our property space. Granting the minimum of 5 units for cell, our sample would have to be of at least 320 political systems... (2)

We have to make other assumptions. We could suppose, for instance:

- a. that 3 and iii are consequences of the same phenomena, so that we can disregard the correlations between them - and thus eliminate the 3 group.
- b. that "political culture", and the like, are correlates and consequences from more structural and basic characteristics of the societies (prismaticism, development imbalance, class or stratification system, etc.), and thus eliminate the group 2.
- c. assume that specific values of the variables in i and ii are necessary and sufficient conditions for specific values of iii, so that, if we know iii, we also know i and ii. Thus, since we are interested only in iii, we could simply ignore that the causal chain going from 1 to iii passes through i and ii - and eliminate them.

In short: we end up studying the relationships between 1 and iii. This would imply to work with political systems as our units of analysis, ignoring all the intermediate steps..We are where we started from, and we could hardly be more reductionist than that... The difference is that now we know what we are not doing, which are our assumptions, and, according to the possibilities, we could transform them into hypothesis, refine our definitions, improve our measurements, and hopefully find out which variables explain variable political power and productivity within and between political systems.

#### IV - The Dependent Variables

The discussion of the dependent variables is a problem of the specification of cell iii, which means to go down in our level of generalization. We will not be doing it in detail, but only stressing some points and indicating some possible typologies.

##### a) Political power of public bureaucracies

There are at least two dimensions on that. The first is the question of "who has the power," and the second the question of "power regarding what?". According to our usual reduccionist technique, we can draw the following table:

<u>POWER REGARDING WHAT?</u>	<u>WHO HAS THE POWER?</u>			
	<u>the state</u>	<u>the bureaucratic strata</u>	<u>the bureaucratic institution</u>	<u>the burea crat</u>
<u>individual freedom</u>	I	II	III	IV
<u>non-governmental institutions</u>	V	VI	VII	VIII
<u>"funcional" or "communitary" groups</u>	IX	X	XI	XII
<u>the "society", or the "political system"</u>	XIII	XIV	XV	XVI

We could include other dimensions, and complicate the table even more, if we take different concepts of political power: we can define power as the capability of imposing the own will upon others (as in the transformation of claims into rights and duties) or as simply the capability of taking things from others (settling the own claims). Let us disregard this and other possible complications, and see what we have so far.

It is clear that the four columns are independent and often unrelated problems. Wittfogel shows how, in the "agrarian despotism", one of the basis of the power of the state is the weakness of the bureaucratic institution, the non-development of a bureaucratic strata and the weakness of the individual bureaucrats as well. In the other hand, Weber shows how, in the modern societies, the power of the bureaucracy is high, while the personal power of the bureaucrats tend to be low.



And at the same time the power of the monarch tend to be high, etc.

Besides the problems of the power relations between the different parts or components of "the bureaucracy", in its broader sense, there is the question of the relationships between bureaucracy and "the rest of the society": our horizontal lines. For Eisenstadt, for instance, it seems that, as far as the bureaucracy is not "doing politics" (fourth line), it is not exercising power. For Wittfogel, instead, it is exactly when the bureaucracy (or rather the state) is administering social and economic matters that its power arises. (xi lines 1 and 2). Our other authors can be similarly placed in our table. Bendix is mainly concerned with the third line, first column. Both Rosenberg and Riggs deal with the second column, Riggs perhaps more in the third, where all the studies on the political role of the modern military tend to concentrate. The first line is the line of the studies on alienation, and the cell IV is the place of the modern concern with the development of technocracy. Etc.

We can retain three basic ideas of this discussion. First, that, as usual, the concept of "political power of public bureaucracies" is poli-dimensional, and what happens with one dimension is logically independent with what happens in the others. Second, that the selection of these dimensions is very much a matter of ideological preferences, since what is a situation of domination, or powerlessness, for one author, can be exactly the contrary to others. For instance, the anti-technocracy ideologist argue more or less in the same line as Wittfogel, trying to keep the bureaucracy out of the social and economic matters, whereas those concerned with the problems of underdevelopment define the problem of bureaucratic power exactly as the situation where the bureaucrats are able to retain their jobs without acting in the social and economic spheres, as they should. The third idea we should retain is that the concept of political power of public bureaucracies is not a characteristic of the bureaucracy (of the bureaucrat, or the bureaucratic institution) in itself, but rather a characteristic of the interaction between bureaucracy and the rest of the society (individuals, government, functional or communitary groups, etc.).

*not necessary.*  
b) Productivity

Notwithstanding the problems of measurement, the two definitions of productivity (capacity and effectiveness) sound satisfactory, and seem to exhaust the possibilities. Productivity as capacity has a theoretical and conceptual relation with power. Theoretically, we can think that, the higher the bureaucratic capacity of production, the higher its power, in general. Conceptually, the capacity has to be measured regarding the whole production capacity of the society, and in this sense it is not a "pure" bureaucratic variable. Effectiveness, in the other hand, can take the output/input ratio without further considerations of the social environment.

Regarding the problem of "productivity of what?" ("ideas or goods", cannons of butter, etc.), it could be a difficult question, since, as for the first alternative, it is not easy to operationalize the concept of "idea output". As for "cannons or butter", the question is that of finding a common denominator for both (travail, value), and assume their



interchangeability. The "ideas or goods" alternative is more simple, in a way: trained social scientists seldom try to do research on ideas-production, either because he tends to be "materialist" or because he prefers to study the essential things through its manifestations as empirical phenomena. So...

## V - Hypothesis.

Hypothesis are an advanced stage of a study, preceded by the mapping of the attribute space and the series of assumptions and operational definitions that follows. As an experiment, and as the conclusion of this paper, let us give an arbitrary list of hypothesis relating our types of independent variables with our dependent ones. We will define "political power" as the capacity of the bureaucratic institution of generating policy (cell XV), the higher value being the seize of government, and productivity" as the capacity of producing or inducing the production of goods and services. The X indicates positive relation, the "-" negatives relation, and "..." no relation or ambiguity.

	<u>Political Power</u>	<u>Productivity</u>
1. <u>"structural permanent"</u> <u>values</u>		
1a. <u>as contexts</u>		
a. prismatic societies	X	-
b. colony	-	X
1b. <u>as variables:</u>		
c. centralization	X	X
d. size of middle sectors	-	X
2. <u>"behavioral permanent"</u> <u>values:</u>		
2a. <u>as contexts:</u>		
e. particularism- charismatic complex.	X	-
f. achievement- specificity complex	...	X
2b. <u>as variables:</u>		
g. N achievement	...	X
h. authoritarianism	X	...
3. <u>"behavioral temporal":</u>		
i. political instability	X	-

	<u>Political Power</u>	<u>Productivity</u>
j. mobilization	X	X
i. <u>bureaucratic patterns:</u>		
k. line, rather than staff	X	-
l. "cicle", rather than "tree" patterns of communication	-	X
ii. <u>informal <del>xx</del> structure</u>		
m. authoritarian leadership	...	-
n. cohesiveness	X	X

This list could be endless, of course. The best thing to do - in another paper, or in an actual research - would be to take one of these hypothesis, to start with it, and to complicate it gradually with the help of the theories and empirical evidences that can be brought into it.

Berkeley, May 5, 1967.

(1) Note on "contextual variables":

Are "contexts" variables? In a way, yes. If we take modern vs. traditional societies, we in general have an assumption of an ordinal scale of modernism. Even if we take "traditional" and "charismatic" societies, without any idea of continuum, we still have a "nominal" variable. In the other hand, to distinguish between "context" and contextual variables (or societal variables, in our case) implies the idea that, in the first case, we are dealing with complex systems which should be dealt with in a discontinuous way, rather than, as in the second case, a continuous dimension.

(2) Note on "types of variables" and "general orientations"

In this text, the two expressions are used indifferently. This can be misleading, though. When we are selecting "types of variables", in our typology, we are just expressing a general theoretical orientation, and this is quite different from selecting variables for theory construction.

*This is first-class and very useful to me. I have reservations on many of your definitions and relationships. But that's part of the game. I look forward to the final paper.*